

Title (en)
NON-VOLATILE STATIC SEMICONDUCTOR MEMORY CELL

Publication
EP 0048815 A3 19830810 (EN)

Application
EP 81106438 A 19810819

Priority
US 19258080 A 19800930

Abstract (en)
[origin: EP0048815A2] This invention provides improved non-volatile semiconductor memories which include a volatile latch circuit having data nodes (A, B) and first and second cross-coupled transistors (12, 14), at least one of the transistors has first and second control gates (30,46; 42, 56), a floating gate (24) and an enhanced conduction insulator (48) or dual electron injector structure disposed between the first control gate (30, 46) and the floating gate (24). The second control gate (42, 56) is connected to the storage node (A). A control voltage source (20, 22) is connected to the first control gate (30, 46) for transferring charge between the enhanced conduction insulator or dual electron injector structure (48) and the data node.

IPC 1-7
G11C 11/00

IPC 8 full level
G11C 14/00 (2006.01); **H01L 27/115** (2006.01); **H01L 29/788** (2006.01)

CPC (source: EP US)
G11C 14/00 (2013.01 - EP US); **H01L 29/7882** (2013.01 - EP US); **H10B 69/00** (2023.02 - EP US); **Y10S 257/904** (2013.01 - EP US)

Citation (search report)
• [Y] ELECTRONICS INTERNATIONAL, vol. 52, no. 10, 10th May 1979, pages 128-131, New York, USA; C. WALLACE: "Electrically erasable memory behaves lik a fast, nonvolatile RAM".
• [Y] ELECTRONICS INTERNATIONAL, vol. 53, no. 21, 25th September 1980, page 33, New York, USA; "IBM'S ROM cell could serve as nonvolatile RAM".
• [A] IBM TECHNICAL DISCLOSURE BULLETIN, vol. 22, no 6, November 1979, pages 2403-2404, New York, USA; C.R. HOFFMAN: "Floating gate non-volatile memory cell".

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0048815 A2 19820407; EP 0048815 A3 19830810; EP 0048815 B1 19860507; DE 3174565 D1 19860612; JP S5764391 A 19820419; JP S5922317 B2 19840525; US 4399522 A 19830816

DOCDB simple family (application)
EP 81106438 A 19810819; DE 3174565 T 19810819; JP 10346181 A 19810703; US 19258080 A 19800930